

REMARKS

In the Office Action, claims 1, 2, 5-7, 11, 14, 17, 19 and 20 are rejected under 35 U.S.C. § 102; and claims 1, 2, 5-8, 11 and 14-20 are rejected under 35 U.S.C. § 103. Claims 1, 7, 14, 16, 17 and 19 have been amended; and claims 3-6 and 9-13 have been cancelled without prejudice or disclaimer. Applicants believe that the rejections have been overcome or are improper in view of the amendments and for the reasons set forth below.

In the Office Action, claims 1, 2, 5-7, 11, 14, 17, 19 and 20 are rejected under 35 U.S.C. § 102 as anticipated by U.S. Patent No. 4,946,448 ("Richmond"). The Patent Office essentially asserts that *Richmond* discloses each and every feature of the claimed invention.

As previously discussed, claims 5, 6 and 11 have been cancelled without prejudice or disclaimer thus, rendering this rejection moot with respect to same. With respect to the remaining pending claims at issue, claims 1, 7, 14, 17 and 19 are the sole independent claims. As previously discussed, each of these claims have been amended. In this regard, claims 1, 7, 14, 17 and 19 each recite, in part, that the valve or valve arrangement includes a piston member that has a mushroom shaped head which is deformable under pressure in a desired flow direction.

The valve arrangement of the present invention can provide a number of different advantages, such as permitting a simple and safe method of administering a fluid from a container to a patient. In a rest state, the mushroom shaped head 24 blocks the channel 12 at the inlet 16 of the chamber 14. When the pressure of fluid at the inlet 16 exceeds the pressure in the chamber 14 by a cracking pressure, the head 24 deforms and/or the piston 20 forms and/or shifts axially in the channel. This unblocks the channel at the inlet 16 of the chamber 14 and allows flow of fluid. Movement of the piston 20 relative to the channel is restricted by a stopper which engages the apex of the mushroom shaped head. Where the pressure differential is below the cracking pressure, the head of the piston blocks flow of fluid. This prevents an undesired free flow of fluid from the container. See, Specification, paragraph 35.

In contrast, Applicants believe that *Richmond* fails to disclose at least a number of features of the claimed invention. For example, Applicants believe that the claimed valve or valve arrangement features directed to a piston member with a mushroom shaped head are distinguishable from what *Richmond* allegedly discloses contrary to the Patent Office's position.

Indeed, *Richmond* merely discloses a disk member (84) that regulates fluid flow through the valve, as described, for example, in columns 4 and 5 of *Richmond*. The disk member of *Richmond* is structurally different than the piston of the claimed invention that includes a stem 22 fitted within the annular inlet region 16 and a mushroom shaped head 24 that is located within the chamber 14 in the valve arrangement 10 as illustrated in Figure 1 and further described in the corresponding text, for example, at paragraph 34 of the Specification. Thus, Applicants believe that one skilled in the art would consider the claimed valve or valve arrangement to be structurally different from the *Richmond* valve and thus would operate in a different manner to regulate fluid flow.

Based on at least these noted differences, Applicants believe that *Richmond* is deficient with respect to the claimed invention. Therefore, Applicants respectfully submit that *Richmond* fails to anticipate the claimed invention.

Accordingly, Applicants respectfully request that the anticipation rejection be withdrawn.

In the Office Action, claims 1, 2, 5-8, 11 and 14-20 are rejected under 35 U.S.C. § 103 as being unpatentable over *Richmond* and further in view of U.S. Patent No. 5,244,463 (“*Cordner*”) and U.S. Patent No. 5,009,654 (“*Minshall*”). The Patent Office primarily relies on *Richmond* and thus relies on the remaining cited references to remedy the deficiencies of same. Applicants believe that, even if combinable, the references are deficient with respect to the claimed invention.

Of the pending claims at issue, claims 1, 7, 14, 17 and 19 are the sole independent claims. As previously discussed, *Richmond* relates to a valve that is both structurally and functionally different than the claimed valve that includes a piston with a mushroom shaped head deformable under pressure in a desired flow direction. Further, Applicants do not believe that the Patent Office can rely solely on the remaining cited references to remedy the deficiencies of *Richmond*.

In this regard, the Patent Office merely relies on *Minshall* as merely disclosing the use of a rotary peristaltic pump with a check valve and *Cordner* as allegedly disclosing a pump with a check valve when delivering nutrition to a patient. See, Office Action, page 3. Thus, Applicants do not believe that one skilled in the art would be inclined to modify *Richmond* in view of *Minshall* and *Cordner* to arrive at the claimed invention.

Based on at least these reasons, Applicants believe that the cited art is distinguishable from the claimed invention. Therefore, Applicants believe that the cited art, even if combinable, fails to render obvious the claimed invention.

Accordingly, Applicants respectfully request that the obviousness rejection be withdrawn.

Applicants note for the record that claim 16 has been amended for clarification purposes and thus was not intended to narrow or disclaim the scope of any claimed subject matter in view of same.

For the foregoing reasons, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit reconsideration of same.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY


Robert M. Barrett
Reg. No. 30,142
P.O. Box 1135
Chicago, Illinois 60690-1135
Phone: (312) 807-4204

Dated: July 23, 2003